

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) A method of forming a fin field effect transistor, comprising:
forming a fin;
forming a source region adjacent a first end of the fin and a drain region adjacent a second end of the fin;
forming an oxide cap over upper surfaces of the fin, source region, and drain region;
forming a layer of sacrificial oxide on the fin, source region and drain region after formation of the oxide cap;
removing the layer of sacrificial oxide to remove defects from surfaces of the fin;
forming a dummy gate comprising a first material in a first pattern over the fin;
forming a dielectric layer adjacent sides of the dummy gate;
removing the first material to form a trench in the dielectric layer corresponding to the first pattern; ~~and~~
forming a layer of gate insulation on the surfaces of the fin exposed within the trench;
and
forming a metal gate in the trench over the layer of gate insulation.
2. (Currently amended) The method of claim 1, wherein the metal gate contacts at least three of the surfaces of the fin.

3. The method of claim 2, wherein the fin field effect transistor comprises a tri-gate fin field effect transistor.
4. The method of claim 1, wherein the dielectric layer comprises tetraethylorthosilicate.
5. (Canceled)
6. The method of claim 5, wherein the gate insulation layer comprises at least one of SiO, SiO₂, SiN, SiON, HFO₂, ZrO₂, Al₂O₃, HFSiO(x) ZnS, and MgF₂.
7. (Currently amended) The method of claim 1, wherein the first ~~crystalline~~ material comprises polysilicon.
8. The method of claim 1, further comprising:
forming a dummy oxide layer over the fin prior to forming the dummy gate.
9. The method of claim 8, wherein forming the dummy gate comprises:
depositing a layer of the first material over the fin; and
etching the layer of the first material to form the dummy gate in the first pattern.
10. The method of claim 1, wherein forming the metal gate comprises:
depositing a metal material to fill the trench.

11-15. (Canceled)

16. (Currently amended) A method of forming a fin field effect transistor, comprising:

forming a fin;

forming a source region adjacent a first end of the fin and a drain region adjacent a second end of the fin;

forming an oxide cap over upper surfaces of the fin, source region, and drain region;

forming a layer of sacrificial oxide on the fin, source region and drain region after formation of the oxide cap;

removing the layer of sacrificial oxide to remove defects from surfaces of the fin;

forming a dummy oxide layer over the fin;

depositing a layer of first material over the fin and dummy oxide layer;

etching the layer of the first material to form a dummy gate in a first pattern;

depositing a dielectric layer over the dummy gate and source and drain regions;

planarizing the dielectric layer to expose a top surface of the dummy gate;

removing the first material to form a trench in the dielectric layer corresponding to the first pattern;

forming a gate insulation layer in the trench on the surfaces of the fin exposed within the trench; and

forming a metal gate in the trench over the gate insulation layer.

17. (Currently amended) The method of claim 16, wherein the metal gate contacts at least three of the surfaces of the fin.

18. The method of claim 16, wherein the fin field effect transistor comprises a tri-gate fin field effect transistor.
19. The method of claim 16, wherein the dielectric layer comprises tetraethylorthosilicate.
20. The method of claim 16, wherein the first material comprises polysilicon.
21. (New) The method of claim 1, wherein forming the metal gate comprises:
depositing a metal material to fill the trench.
22. (New) The method of claim 1, wherein forming the layer of sacrificial oxide comprises:
thermally growing the layer of sacrificial oxide, and
wherein removing the layer of sacrificial oxide to remove defects from sidewalls of the fin comprises:
etching the layer of sacrificial oxide.